

Appln. No. 10/784,406
Response to Final Rejection dated August 10, 2006
Reply to Office Action of March 25, 2006

Remarks/Arguments

Claim Amendments

Claims 1, 15 and 16 are amended to make it clear that the crosslinkable resin comprises one or more of an ethylene-acrylic acid copolymer, an ethylene-methacrylic acid copolymer and an ethylene-acrylic acid-methacrylic acid terpolymer along with one or more additional copolymers of ethylene with an ethylenically unsaturated monomer. Support for the term "additional" with respect to the one or more copolymers of ethylene with an ethylenically unsaturated monomer can be found in paragraph 15 in the first sentence. Further, Claims, 1, 15 and 16 are further amended to indicate that the ethylene-acrylic acid copolymer, ethylene-methacrylic acid polymer and/or ethylene-acrylic acid methacrylic acid terpolymers present have a melt flow rate when measured, according to ISO 1113, of more than 100/g/10 minutes at 190°C and 2.16 kg. Support for this amendment can be found in paragraph 13. Claims 4, 9, 11, 12, 21 and 25 are cancelled. Claims 28-33 are cancelled in view of the restriction requirement issued in the Final Rejection. Applicants reserve the right to file divisional applications on the subject matter of Claims 28-33.

New Claims 34-44 are added. Claims 34 and 39 require that ethylene-acrylic acid be present and depend from Claims 1 and 15, respectively. Support for this amendment can be found in Table 2, page 19 and Table 5, page 22. Claims 35 and 40 depend respectively from Claims 1 and 15, and add the further limitation that the melt flow rate is about 300 to 1,300. Support for this can be found in paragraphs 13 and 14. Claims 36 and 41 depend respectively from Claims 1 and 15 and require that the pellets are coated with the powder comprising a filler applied in an amount of from about 0.2 to about 2 percent based on the weight of the composition. Support for this amendment can be found in paragraph 35. Claims 37 and 42 depend from Claims 34 and 39, and define the additional copolymer of ethylene with an ethylenically unsaturated monomer to comprise ethylene vinyl acetate. Support for this can be found in paragraphs 15 and 16 of the specification. Claims 38 and 43 depend from Claims 37 and 42, respectively, add the limitation that the ethylenically unsaturated monomer is present in an amount of up to 25 percent by weight based on the total composition. Support for this amendment can be found in paragraph 15. Claim 43 depends from Claim 17 and adds a further step to the method the step comprising coating the pellets with the powder comprising the filler. Support for this can be found in paragraph 35.

As a result of the amendments to the claims, no new fees are due as the number of total claims and independent claims present were paid for in previous submissions. If this is found to be incorrect, the USPTO is hereby authorized to deduct additional fees from the Assignees' Deposit Account No. 04-1512.

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35 USC§103 Rejection

Claims 1, 2, 4-27 are rejected under 35 USC§103 as being unpatentable over GB 1,299,480 to Imperial Chemical Industries, Limited (hereinafter "ICI") in combination with U.S. Patent 3,700,758 to Johnson et al. (hereinafter "Johnson"). Applicants traverse this rejection for the reasons stated hereinafter and respectfully request withdrawal of this rejection.

Argument 35 USC§103 Rejection

There are several features of the currently amended claims which are neither taught nor suggested in the cited references. The cited references do not provide any motivation to the skilled artisan to modify the teachings of the primary reference ICI so as to achieve the claimed compositions. More particularly, ICI does not teach a composition which is in the form of free flowing pellets which comprises as a component a crosslinkable resin containing on one hand one or more of an ethylene-acrylic acid copolymer, an ethylene-methacrylic acid copolymer and an ethylene-acrylic acid- methacrylic acid terpolymer and which resin further comprises another copolymer of ethylene with an ethylenically unsaturated monomer. Nor does ICI teach or suggest that the ethylene-acrylic acid copolymer, ethylene-methacrylic acid copolymer and/or ethylene-acrylic acid-methacrylic acid terpolymers have a melt flow rate, when measured according to ISO 1113, of more than 100g/10 minutes at 190°C and 216/kg. ICI does not teach or suggest selecting free radical crosslinking initiators having a 1 hour half life temperature of from about 110°C to about 170°C. ICI does not teach that by making such selection that the composition can be formed into flowable pellets, which pellets can be melted and applied to a substrate at 90 to 120°C without curing and can thereafter be cured at 120 to 200°C. All of these features are contained in Claims 1, 15 and 16, furthermore the secondary reference Johnson, which is cited solely for the proposition that thermoplastic compositions can be pelletized does not teach or suggest modifying the teachings of ICI to add the features discussed hereinbefore. Therefore, there is no motivation for one skilled in the art to make the modifications to make Applicants' claimed composition; therefore the claims are novel and unobvious in view of the teachings of the cited references.

Furthermore, the cited references do not teach or suggest that one or more of an ethylene-acrylic acid copolymer, an ethylene-methacrylic acid copolymer and an ethylene-acrylic acid-methacrylic terpolymer should be present in an amount of about 10 to about 40 weight percent based on the total composition, as claimed in Claim 5. Nor do the references teach or suggest that the adhesion promoter contain both a plasticizer and a tackifier, as required in Claims 7 and 16. Furthermore, neither of the two references discloses that the resin contain as a copolymer of ethylene and ethylenically unsaturated monomer, a terpolymer containing acrylate and/or methacrylate units, a maleic anhydride grafted

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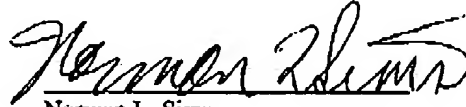
elastomer, an ethylene-acrylate glycidyl methacrylate polymer, an ethylene-acrylate maleic anhydride polymer, an ethylene-vinyl acetate-maleic anhydride polymer, an ethylene-vinyl acetate copolymer, an ethylene-methacrylic ester copolymer, an ethylene-ethylacrylic ester copolymer, an ethylene-butylacrylic ester copolymer, and a rubber, as required in Claim 8. Neither of the references discloses that the copolymer or terpolymer as described in Claim 8 can be present in an amount of up to 30 percent by weight. Nor do the references disclose that the composition can expand from about 150 to 250 percent on curing as required in Claim 14. Neither of the references discloses compounding the components of the compositions as claimed in Claims 1 or 15 and thereafter pelletizing the resulting composition to produce a dry flowing material as required in Claim 17. Nor do the references disclose using such compositions to adhere two components together wherein the steps comprise melting a composition according to Claims 1 or 15 at 90 to 100°C, contacting the first and second components with a melted composition and applying heat to cure the composition at a temperature of about 120 to 200°C, as claimed in Claim 19. Nor do the references disclose the amounts of plasticizer and tackifier as required in Claims 20 and 24, disclose the preferred embodiment of curing the composition at 140 to 200°C as required in Claims 22 and 26. Further, the references do not teach or suggest selection of a resin for the composition wherein the acid containing a copolymer selected is ethylene acrylic acid, as required in Claims 34 and 39. The references further do not disclose the preferred limitation of the melt flow rate being 300 to 1,300 as required in Claims 35 and 40. The references do not teach a composition wherein the pellets are coated with a filler or a process which includes coating the pellets with filler as required in Claims 36, 41 and 44. The references do not teach or suggest selection such that the additional copolymer of ethylene and an ethylenically unsaturated monomer be ethylene vinyl acetate as required by Claims 37 and 42. The references do not teach or suggest that the amount of the ethylene vinyl acetate be up to 25 percent of the composition.

In view of the fact that neither of the two references suggests modifying the teachings of the primary reference ICI to add all of the recited features as discussed hereinbefore, no case of *prima facie* obviousness is made out and these claims are novel and unobvious. The cited references do not teach or suggest how to make a free flowing pelletized reactive hot melt composition or what selections and

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components to utilize to achieve such a desired result. In view of the fact that the references do not teach, suggest or motivate one skilled in the art to make the selections, the claims are unobvious and the rejection must be withdrawn. Applicants request entry of the amendments and solicit early allowance of Claims 1-2, 5-8, 10, 13-20, 22-24, 26-27 and 34-44.

Respectfully submitted,



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Dated: August 10, 2006